THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GERD OHRNBERGER and HELMUT DILLIG

Appeal No. 96-3298
Application 08/361,284[1]

ON BRIEF

Before CALVERT, COHEN and STAAB, *Administrative Patent Judges*.

STAAB, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 7-11. No other claims are currently pending.

---

[1] Application for patent filed December 22, 1994.

Appellants' invention pertains to an inlet pipe system for a multicylinder internal combustion engine, and in particular to an inlet pipe system wherein the effective length of the inlet pipes can be varied in order to improve engine performance. A further understanding of the invention can be derived from a reading of exemplary claim 7, a copy of which is appended to appellants' brief.

In rejecting appellants' claims under 35 U.S.C. § 103, the examiner has relied upon the references listed below:

Miyano et al. (Miyano)	4,854,271	Aug. 8, 1989
Parr	4,932,369	Jun. 12, 1990
Shillington	4,919,086	Apr. 24, 1990

Claims 7-11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Miyano in view of Parr and further in view of Shillington.

Miyano pertains to an intake manifold assembly for a V6 internal combustion engine. With reference of Figures 1 and 2, the manifold includes an intake distributor 33, a first series of counterclockwise extending pipes communicating with first cylinder bank 1, and a second series of clockwise extending pipes communicating with second cylinder bank 2.

The pipes communicating with the first bank are arranged in pairs, with each pair comprising a first long pipe 42 and a second shorter pipe 43. A set of valves 45 mounted on a common shaft is

provided for the first series of pipes, one valve being located in each of the shorter pipes. By turning the shaft, valves 45 can be placed in a first position preventing the passage of air from the intake distributor through the shorter pipes to the cylinders of the first bank, a second position permitting the passage of air from the intake distributor through the shorter pipes to the cylinders of the first bank, and various positions therebetween. Miyano's second series of pipes is similar to the first series, except, as can be discerned from Figures 1 and 2, the second series of pipes is a mirror image of the first series of pipes. In this regard, the second series of pipes includes its own set of valves 45 mounted on a common shaft separate and distinct from the shaft carrying the valves for the first series of pipes. Actuator 46 is attached to both valve shafts for actuating all of the

valves 45 simultaneously.

Parr discloses an intake manifold for an internal combustion engine, wherein the manifold includes an intake distributor 11 and a series of pipes communicating with the cylinders. The engine of Parr appears to comprise an in-line cylinder block, that is, the cylinders appear to be aligned in a single row or

bank. As with Miyano, the pipes of Parr's manifold are arranged in pairs, with each pair comprising a first long pipe 14, 24 and a second shorter pipe 31. In addition, a rotary valve member 15 having a number of transverse ducts 40 is provided in Parr for controlling the passage of air through either the long pipes or the shorter pipes.

Shillington discloses an air intake comprising pairs of long and short pipes, the pipes being formed by a single plastic part.

In rejecting the appealed claims under 35 U.S.C. § 103, the examiner acknowledges that Miyano lacks, *inter alia*, "utilizing a single drum controller rotatively arranged in a

longitudinal hole intersecting each second [shorter] individual inlet pipe, the drum controller having through-holes to open and close the second [shorter] individual inlet pipes by rotation of the drum controller" (final rejection, page 3).[2] Nevertheless, the examiner has taken the position that "[i]t would have been obvious . . . to provide the intake manifold of Miyano et al with the drum controller of Parr in lieu of throttle valve 45, in order to provide a more durable, less expensive control for the second [shorter] passage" (final rejection, page 3).

In addition, in responding to appellants' argument, the examiner acknowledges that one could not modify Miyano by placing a single drum controller in a longitudinal hole intersecting each of the shorter pipes because Miyano's design requires two separate and distinct valve shafts. The examiner

[2] According to appellants (brief, page 5), Miyano also fails to disclose shorter inlet pipes that end at the same flange as the long inlet pipes, as called for in claim 7, and a common wall between each of the first and second inlet pipes, as also called for in claim 7.

has taken the position, however, that

> appellant has [sic, appellants have] made no argument as to the benefit to be derived from having one drum controller, and it is not seen that this is a patentable distinction. Note that it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlson,* 136 USPQ 184 (answer, page 4).

Claim 7 calls for an inlet pipe system comprising a *single* drum controller intersecting *each* of the second (shorter) inlet pipes. If it is the examiner's position that it would have been obvious to replace the valve shaft and valves 45 of *each* of Miyano's first and second series of pipes with a drum controller like that of Parr, the resulting manifold clearly would not correspond to appellants' claimed subject matter because the resulting modified Miyano manifold would not comprise a *single* drum controller intersecting *each* of the shorter inlet pipes. On the other hand, if it is the examiner's position that it would have been obvious in view of the teachings of Parr to

replace the valve shaft and valves 45 of *both* of Miyano's first and second series of pipes with a *single* drum controller like that of Parr, we simply do not agree that the combined teachings of the applied references suggest such a modification. As aptly pointed out by appellants, Miyano's design virtually excludes the possibility of providing this sort of construction absent a major reconstruction which would involve eliminating one of the common valve shafts and rerouting the paths of the pipes to allow each of the shorter inlet pipes to be under the control of a single controller. How this is to be accomplished in the absence of appellants' teachings is not clear.

As for the examiner's reliance on *In re Karlson*, 311 F.2d 581, 584, 136 USPQ 184, 186 (CCPA 1963) for the principle that omission of an element and its function involves only routine skill in the art, we observe that the court has also recognized

that this is not a mechanical rule, and that the language in

Karlson was not intended to short circuit the determination of obviousness mandated by 35 U.S.C. § 103. *In re Wright*, 343 F.2d 761, 769-70, 145 USPQ 182, 190 (CCPA 1965). We do not agree with the examiner's position to the extent it advocates that the use of a single controller drum for opening or closing each of the shorter pipes is not a patentable distinction with respect to Miyano's intake manifold for a V-type engine. To the contrary, it appears that appellants have eliminated one of Miyano's valve shafts while *retaining* its function (i.e., controlling the opening and closing of the affected shorter inlet pipes) by arranging the inlet pipes in a manner which allows use of a single controller. Such elimination of an element (the second valve shaft) while retaining its function is indicative of unobviousness, and we find nothing in the applied prior art which would indicate otherwise. *See In re Fleissner,* 264 F.2d 897, 900, 121 USPQ 270, 271 (CCPA 1959) ("it may be unobvious to omit an element while retaining its function"), and *Richards v. Chase Elevator Co.,* 159 U.S. 477, 486, 1895 Dec. Comm'r of Pats., 728, 729 ("the omission of an element in a combination may constitute

invention, if the result of the new combination be the same as before").

The Shillington reference was cited for its showing of air intake pipes formed by a single plastic part, and does not add anything to the Miyano and Parr references insofar as the deficiencies discussed above are concerned.

Accordingly, we conclude that the applied prior art does not make out a *prima facie* case of obviousness.

The decision of the examiner is reversed.

REVERSED

IAN A. CALVERT Administrative Patent Judge	)	
IRWIN CHARLES COHEN Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
LAWRENCE J. STAAB Administrative Patent Judge	)	

Peter N. Lalos
Lalos & Keegan
1146 Nineteenth Street NW
Washington, DC 20036-3703